Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S24	144	530/395.ccls. AND ((glycopeptide OR glycoprotein) SAME synthesis)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/02/16 17:58
S4	341	435/69.1.ccls. AND ((glycopeptide OR glycoprotein) SAME synthesis)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/02/16 17:58
S23	11	514/8.ccls. AND ((glycopeptide OR glycoprotein) SAME synthesis) AND (electrophilic OR nucleophilic) AND method.clm.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/02/16 17:50
S22	13	514/8.ccls. AND ((glycopeptide OR glycoprotein) SAME synthesis) AND (electrophilic OR nucleophilic)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/02/16 17:50
S21	12	435/69.1.ccls. AND ((glycopeptide OR glycoprotein) SAME synthesis) AND (electrophilic OR nucleophilic)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/02/16 17:50
S20	363	435/69.1.ccls. AND ((glycopeptide OR glycoprotein) SAME synthesis)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/02/16 17:50
S19	105	514/8.ccls. AND ((glycopeptide OR glycoprotein) SAME synthesis)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/02/16 17:50
S18	996	514/8.ccls. AND (glycopeptide OR glycoprotein)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/02/16 17:50
S17	2387	514/8.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/02/16 17:50
S16	9	dougherty-dennis-$.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/02/16 07:49
S15	88	dougherty-d$.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/02/16 07:49
S14	7	rajbhandary-$.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/02/16 07:48

S13	0	nishikawa-k$.in. AND ohno-s$.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/02/16 07:26
S12	0	nishikawa-k$.in. AND amber ADJ suppressor	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/02/16 07:26
S11	4706	nishikawa-k$.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/02/16 07:25
S8	41	schultz-peter.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2005/02/16 07:25
S7	9	514/8.ccls. AND ((glycopeptide OR glycoprotein) SAME synthesis) AND (electrophilic OR nucleophilic) AND method.clm.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/08/18 19:52
S6	11	514/8.ccls. AND ((glycopeptide OR glycoprotein) SAME synthesis) AND (electrophilic OR nucleophilic)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/08/18 19:52
S5	10	435/69.1.ccls. AND ((glycopeptide OR glycoprotein) SAME synthesis) AND (electrophilic OR nucleophilic)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/08/18 19:51
S3	95	514/8.ccls. AND ((glycopeptide OR glycoprotein) SAME synthesis)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/08/18 19:50
S10	4	zhang-zhiwen.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/08/18 19:48
S2	932	514/8.ccls. AND (glycopeptide OR glycoprotein)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/08/18 19:48
S1	2267	514/8.ccls.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/08/18 19:48
S9	55	wang-lei.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2004/08/18 19:29

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NEWS	2		"Ask CAS" for self-help around the clock
NEWS	3	SEP 01	New pricing for the Save Answers for SciFinder Wizard within STN Express with Discover!
NEWS	4	OCT 28	KOREAPAT now available on STN
NEWS	5	NOV 30	PHAR reloaded with additional data
NEWS	6	DEC 01	LISA now available on STN
NEWS	7	DEC 09	12 databases to be removed from STN on December 31, 2004
NEWS	8	DEC 15	MEDLINE update schedule for December 2004
NEWS	9	DEC 17	ELCOM reloaded; updating to resume; current-awareness alerts (SDIs) affected
NEWS	10	DEC 17	COMPUAB reloaded; updating to resume; current-awareness alerts (SDIs) affected
NEWS	11	DEC 17	SOLIDSTATE reloaded; updating to resume; current-awareness alerts (SDIs) affected
NEWS	12	DEC 17	CERAB reloaded; updating to resume; current-awareness alerts (SDIs) affected
NEWS	13	DEC 17	THREE NEW FIELDS ADDED TO IFIPAT/IFIUDB/IFICDB
NEWS	14	DEC 30	EPFULL: New patent full text database to be available on STN
NEWS	15	DEC 30	CAPLUS - PATENT COVERAGE EXPANDED
NEWS	16	JAN 03	No connect-hour charges in EPFULL during January and February 2005
NEWS	17	JAN 26	CA/CAPLUS - Expanded patent coverage to include the Russian Agency for Patents and Trademarks (ROSPATENT)
NEWS	18	FEB 10	STN Patent Forums to be held in March 2005
NEWS	19	FEB 16	STN User Update to be held in conjunction with the 229th ACS National Meeting on March 13, 2005

NEWS EXPRESS	JANUARY 10 CURRENT WINDOWS VERSION IS V7.01a, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 10 JANUARY 2005
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NEWS INTER	General Internet Information
NEWS LOGIN	Welcome Banner and News Items
NEWS PHONE	Direct Dial and Telecommunication Network Access to STN
NEWS WWW	CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

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  * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 18:14:54 ON 16 FEB 2005

=> index bioscience
FILE 'DRUGMONOG' ACCESS NOT AUTHORIZED
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         0.21       0.21

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE,
       AQUASCI, BIOBUSINESS, BIOCOMMERCE, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS,
       BIOTECHNO, CABA, CANCERLIT, CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB,
       CROPU, DDFB, DDFU, DGENE, DISSABS, ...' ENTERED AT 18:15:06 ON 16 FEB 2005

75 FILES IN THE FILE LIST IN STNINDEX

Enter SET DETAIL ON to see search term postings or to view
search error messages that display as 0* with SET DETAIL OFF.

=> s glycoprotein
      15324   FILE ADISCTI
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        347   FILE ADISNEWS
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         36   FILE AQUALINE
       1750   FILE AQUASCI
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       205   FILE IMSRESEARCH
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       117   FILE KOSMET
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        28   FILE MEDICONF
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       794   FILE NTIS
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       381   FILE OCEAN
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      3078   FILE PROMT
       515   FILE PROUSDDR
         1   FILE PS
         9   FILE RDISCLOSURE
    101293   FILE SCISEARCH
        21   FILE SYNTHLINE
     45211   FILE TOXCENTER
     36164   FILE USPATFULL
      2164   FILE USPAT2
        61   FILE VETB
      1038   FILE VETU
        46   FILE WATER
      5117   FILE WPIDS
        38   FILE WPIFV
      5117   FILE WPINDEX

  73 FILES HAVE ONE OR MORE ANSWERS,   75 FILES SEARCHED IN STNINDEX

L1   QUE GLYCOPROTEIN

=> d rank
F1      153452   MEDLINE
F2      139906   CAPLUS
F3      103597   BIOSIS
F4      101293   SCISEARCH
F5       95270   GENBANK
F6       91395   EMBASE
F7       69506   PASCAL
F8       64732   JICST-EPLUS
F9       49187   DGENE
F10      45211   TOXCENTER
F11      44105   BIOTECHNO
F12      43195   CANCERLIT
F13      40957   ESBIOBASE
F14      36164   USPATFULL
F15      35160   LIFESCI
F16      26704   DRUGU
F17      24838   DDFU
F18      15501   CABA
F19      15324   ADISCTI
F20       6515   AGRICOLA
F21       5247   BIOTECHABS
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F25       4844   DISSABS
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F40         794   NTIS
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F66          28   MEDICONF
F67          21   SYNTHLINE
F68          17   IMSPRODUCT
F69           9   RDISCLOSURE
F70           3   NUTRACEUT
F71           2   FOREGE
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F73           1   PS

=> file f1, f2, f3, f4, f14
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                                               ENTRY    SESSION
FULL ESTIMATED COST                             1.77       1.98

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FILE 'CAPLUS' ENTERED AT 18:16:38 ON 16 FEB 2005
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FILE 'SCISEARCH' ENTERED AT 18:16:38 ON 16 FEB 2005

FILE 'USPATFULL' ENTERED AT 18:16:38 ON 16 FEB 2005


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=> s glycoprotein AND synthesis
L2       61748 GLYCOPROTEIN AND SYNTHESIS

=> s unnatural(w)amino(w)acid
L3        5428 UNNATURAL(W) AMINO(W) ACID

=> s L2 AND L3
L4         882 L2 AND L3

=> dup rem L4
PROCESSING COMPLETED FOR L4
L5          882 DUP REM L4 (0 DUPLICATES REMOVED)

=> s schultz,peter/au
L6          80 SCHULTZ,PETER/AU

=> s wang,lei/au
L7        1551 WANG,LEI/AU

=> s zhang,zhiwen/au
L8         144 ZHANG,ZHIWEN/AU

=> d his

     (FILE 'HOME' ENTERED AT 18:14:54 ON 16 FEB 2005)

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     AQUASCI, BIOBUSINESS, BIOCOMMERCE, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS,
     BIOTECHNO, CABA, CANCERLIT, CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB,
     CROPU, DDFB, DDFU, DGENE, DISSABS, ...' ENTERED AT 18:15:06 ON 16 FEB 2005
               SEA GLYCOPROTEIN
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             503   FILE ADISINSIGHT
             347   FILE ADISNEWS
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        24838   FILE DDFU
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          620   FILE FROSTI
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        95270   FILE GENBANK
           62   FILE HEALSAFE
         4485   FILE IFIPAT
          298   FILE IMSDRUGNEWS
           17   FILE IMSPRODUCT
          205   FILE IMSRESEARCH
        64732   FILE JICST-EPLUS
          117   FILE KOSMET
        35160   FILE LIFESCI
           28   FILE MEDICONF
       153452   FILE MEDLINE
          195   FILE NIOSHTIC
          794   FILE NTIS
            3   FILE NUTRACEUT
          381   FILE OCEAN
        69506   FILE PASCAL
          597   FILE PHAR
          179   FILE PHARMAML
            1   FILE PHIC
          559   FILE PHIN
         3078   FILE PROMT
          515   FILE PROUSDDR
            1   FILE PS
            9   FILE RDISCLOSURE
       101293   FILE SCISEARCH
           21   FILE SYNTHLINE
        45211   FILE TOXCENTER
        36164   FILE USPATFULL
         2164   FILE USPAT2
           61   FILE VETB
         1038   FILE VETU
           46   FILE WATER
         5117   FILE WPIDS
           38   FILE WPIFV
         5117   FILE WPINDEX
L1            QUE GLYCOPROTEIN
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    FILE 'MEDLINE, CAPLUS, BIOSIS, SCISEARCH, USPATFULL' ENTERED AT 18:16:38
    ON 16 FEB 2005
L2        61748 S GLYCOPROTEIN AND SYNTHESIS
L3         5428 S UNNATURAL(W)AMINO(W)ACID
L4          882 S L2 AND L3
L5          882 DUP REM L4 (0 DUPLICATES REMOVED)
L6           80 S SCHULTZ,PETER/AU
L7         1551 S WANG,LEI/AU
L8          144 S ZHANG,ZHIWEN/AU
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=> s L5 AND (L6 OR L7 OR L8)
L9            4 L5 AND (L6 OR L7 OR L8)

=> dup rem l9
PROCESSING COMPLETED FOR L9
L10           4 DUP REM L9 (0 DUPLICATES REMOVED)

=> d his

     (FILE 'HOME' ENTERED AT 18:14:54 ON 16 FEB 2005)

     INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE,
     AQUASCI, BIOBUSINESS, BIOCOMMERCE, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS,
     BIOTECHNO, CABA, CANCERLIT, CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB,
     CROPU, DDFB, DDFU, DGENE, DISSABS, ...' ENTERED AT 18:15:06 ON 16 FEB 2005
               SEA GLYCOPROTEIN
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              503   FILE ADISINSIGHT
              347   FILE ADISNEWS
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           5117   FILE WPINDEX
L1              QUE GLYCOPROTEIN
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     FILE 'MEDLINE, CAPLUS, BIOSIS, SCISEARCH, USPATFULL' ENTERED AT 18:16:38
     ON 16 FEB 2005
L2         61748 S GLYCOPROTEIN AND SYNTHESIS
L3          5428 S UNNATURAL(W)AMINO(W)ACID
L4           882 S L2 AND L3
L5           882 DUP REM L4 (0 DUPLICATES REMOVED)
L6            80 S SCHULTZ,PETER/AU
L7          1551 S WANG,LEI/AU
L8           144 S ZHANG,ZHIWEN/AU
L9             4 S L5 AND (L6 OR L7 OR L8)
L10            4 DUP REM L9 (0 DUPLICATES REMOVED)

=> d l10 ibib ti abs 1-4

L10  ANSWER 1 OF 4  CAPLUS  COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER:         2004:354961  CAPLUS
DOCUMENT NUMBER:          140:370523
TITLE:                    Synthetic glycosylation of proteins by incorporation
                          of unnatural amino acids
                          with novel reactive groups into the protein
INVENTOR(S):              Schultz, Peter G.; Wang, Lei; Zhang,
                          Zhiwen
PATENT ASSIGNEE(S):       The Scripps Research Institute, USA
SOURCE:                   PCT Int. Appl., 103 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   2
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.         DATE
     ---------------      ----   --------    --------------------    --------
     WO 2004035605         A2    20040429    WO 2003-US32870         20031015
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W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2004138106 A1 20040715 US 2003-686944 20031015

PRIORITY APPLN. INFO.: US 2002-419265P P 20021016
US 2002-420990P P 20021023
US 2003-441450P P 20030116

TI Synthetic glycosylation of proteins by incorporation of **unnatural amino acids** with novel reactive groups into the protein

AB Methods for glycosidating proteins to give novel positions and patterns of glycosidation are described. One method involves incorporating an **unnatural amino acid** containing a reactive group into a protein and attaching one or more saccharide moieties to the **unnatural amino acid.** Another method involves incorporating an **unnatural amino acid** that includes a saccharide moiety into a protein. Proteins made by both methods can be further modified with addnl. sugars. Methods of introducing ketoamino acids into proteins during protein **synthesis** by means of tRNA variants charged with the amino acid and aminoacyl-tRNA synthetase derivs. capable of charging the tRNAs with ketoaminoacids are described. The tRNA recognizes a codon such as a stop codon, a rare codon, or a tetranucleotide or longer sequence that is rare in the gene of interest. A mutant Methanococcus jannaschii tyrosyl tRNA synthetase that could suppress amber mutations in a chloramphenicol acetyltransferase gene was selected and screened for growth on chloramphenicol in the presence p-acetyl-L-phenylalanine. Translation of genes containing amber mutations in the presence of this synthetase resulted in the introduction of the keto amino acid at the specific sites in the presence of an amer suppressor tRNA. The protein could be modified with fluorescein hydrazide and biotin hydrazide at the corresponding sites.

L10 ANSWER 2 OF 4 USPATFULL on STN

ACCESSION NUMBER: 2004:255107 USPATFULL

TITLE: Protein arrays

INVENTOR(S): Schultz, Peter G., La Jolla, CA, UNITED STATES
Wang, Lei, San Diego, CA, UNITED STATES

PATENT ASSIGNEE(S): The Scripps Research Institute (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2004198637	A1	20041007	
APPLICATION INFO.:	US 2003-744899	A1	20031222	(10)

	NUMBER	DATE	
PRIORITY INFORMATION:	US 2002-435821P	20021222	(60)

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: QUINE INTELLECTUAL PROPERTY LAW GROUP, P.C., P O BOX 458, ALAMEDA, CA, 94501

NUMBER OF CLAIMS: 66

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 2 Drawing Page(s)

LINE COUNT: 3592

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

TI Protein arrays

AB The invention provides proteins attached to solid supports, and methods of preparing such solid support-bound proteins are provided. The proteins are attached to solid supports by means of an **unnatural amino acid** incorporated into the protein, which **unnatural amino acid** includes a reactive group that can react with a second reactive group that is attached to a solid support.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 3 OF 4 USPATFULL on STN

ACCESSION NUMBER:	2004:178936 USPATFULL
TITLE:	**Glycoprotein synthesis**
INVENTOR(S):	Schultz, Peter G., La Jolla, CA, UNITED STATES **Wang, Lei**, San Diego, CA, UNITED STATES **Zhang, Zhiwen**, San Diego, CA, UNITED STATES
PATENT ASSIGNEE(S):	The Scripps Research Institute, La Jolla, CA, 92037 (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2004138106	A1	20040715	
APPLICATION INFO.:	US 2003-686944	A1	20031015	(10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-419265P	20021016 (60)
	US 2002-420990P	20021023 (60)
	US 2003-441450P	20030116 (60)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
LEGAL REPRESENTATIVE:	QUINE INTELLECTUAL PROPERTY LAW GROUP, P.C., P O BOX 458, ALAMEDA, CA, 94501
NUMBER OF CLAIMS:	57
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	5 Drawing Page(s)
LINE COUNT:	4389

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

TI **Glycoprotein synthesis**

AB Methods for making **glycoproteins**, both in vitro and in vivo, are provided. One method involves incorporating an **unnatural amino acid** into a protein and attaching one or more saccharide moieties to the **unnatural amino acid**. Another method involves incorporating an **unnatural amino acid** that includes a saccharide moiety into a protein. Proteins made by both methods can be further modified with additional sugars.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L10 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:	2002:832815 CAPLUS
DOCUMENT NUMBER:	137:348175
TITLE:	Use of non-native tRNAs and amino acyl tRNA synthetases with relaxed substrate specificity in the in vivo incorporation of **unnatural amino acids**
INVENTOR(S):	**Schultz, Peter; Wang, Lei;** Anderson, John Christopher; Chin, Jason W. K.; Liu, David R.; Magliery, Thomas J.; Meggers, Eric L.; Mehl, Ryan Aaron; Pastrnak, Miro; Santoro, Steven William; **Zhang, Zhiwen**
PATENT ASSIGNEE(S):	The Scripps Research Institute, USA

SOURCE: PCT Int. Appl., 188 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002085923	A2	20021031	WO 2002-US12465	20020419
WO 2002085923	A3	20040527		
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2443757	AA	20021031	CA 2002-2443757	20020419
US 2003082575	A1	20030501	US 2002-126927	20020419
US 2003108885	A1	20030612	US 2002-126931	20020419
EP 1490483	A2	20041229	EP 2002-725743	20020419
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
JP 2005502322	T2	20050127	JP 2002-583449	20020419

PRIORITY APPLN. INFO.:	US 2001-285030P	P	20010419
	US 2002-355514P	P	20020206
	WO 2002-US12465	W	20020419

OTHER SOURCE(S): MARPAT 137:348175

TI Use of non-native tRNAs and amino acyl tRNA synthetases with relaxed substrate specificity in the in vivo incorporation of **unnatural amino acids**

AB The invention provides methods and compns. for in vivo incorporation of **unnatural amino acids.** Also provided are compns. including proteins with **unnatural amino acids.** Incorporation is achieved by using a non-native or orthogonal tRNA and its cognate aminoacyl tRNA synthetase. The synthetase is modified to accept a range of amino acid analogs as substrates for the charging of the tRNA. The tRNA can also be modified to create a four- or five base anticodon that can be used to limit the incorporation of the foreign amino acid to specific sites, i.e. as a suppressor tRNA. Use of the CUA tRNA and tyrosyl tRNA synthetase of Methanococcus jannaschii to incorporate tyrosine analogs into proteins in Escherichia coli is demonstrated. L-3-(2-Naphthyl)alanine was incorporated into chloramphenicol acetyltransferase at non-essential sites using an amber suppressor tRNA. Resistance of these variants to chloramphenicol was improved by incorporation of L-3-(2-naphthyl)alanine into the culture medium.

=> d his

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L1              QUE GLYCOPROTEIN
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     FILE 'MEDLINE, CAPLUS, BIOSIS, SCISEARCH, USPATFULL' ENTERED AT 18:16:38
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L2         61748 S GLYCOPROTEIN AND SYNTHESIS
L3          5428 S UNNATURAL(W)AMINO(W)ACID
L4           882 S L2 AND L3
L5           882 DUP REM L4 (0 DUPLICATES REMOVED)
L6            80 S SCHULTZ,PETER/AU
L7          1551 S WANG,LEI/AU
L8           144 S ZHANG,ZHIWEN/AU
L9             4 S L5 AND (L6 OR L7 OR L8)
L10            4 DUP REM L9 (0 DUPLICATES REMOVED)

=> s nucleoph? OR electrophi? AND L5
L11      151282 NUCLEOPH? OR ELECTROPHI? AND L5

=> s (nucleoph? OR electrophi?) AND L5
L12         208 (NUCLEOPH? OR ELECTROPHI?) AND L5

=> dup rem l12
PROCESSING COMPLETED FOR L12
L13          208 DUP REM L12 (0 DUPLICATES REMOVED)

=> d his

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L4           882 S L2 AND L3
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L5          882 DUP REM L4 (0 DUPLICATES REMOVED)
L6           80 S SCHULTZ,PETER/AU
L7         1551 S WANG,LEI/AU
L8          144 S ZHANG,ZHIWEN/AU
L9            4 S L5 AND (L6 OR L7 OR L8)
L10           4 DUP REM L9 (0 DUPLICATES REMOVED)
L11      151282 S NUCLEOPH? OR ELECTROPHI? AND L5
L12         208 S (NUCLEOPH? OR ELECTROPHI?) AND L5
L13         208 DUP REM L12 (0 DUPLICATES REMOVED)

=> s in(w)vivo AND L13
L14           0 IN(W) VIVO AND L13

=> s in(w)vitro AND L13
L15           0 IN(W) VITRO AND L13

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L12          208 S (NUCLEOPH? OR ELECTROPHI?) AND L5
L13          208 DUP REM L12 (0 DUPLICATES REMOVED)
L14            0 S IN(W)VIVO AND L13
L15            0 S IN(W)VITRO AND L13

=> s solid(w)phase AND L13
L16          151 SOLID(W) PHASE AND L13

=> d his

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L13          208 DUP REM L12 (0 DUPLICATES REMOVED)
L14            0 S IN(W)VIVO AND L13
L15            0 S IN(W)VITRO AND L13
L16          151 S SOLID(W)PHASE AND L13

=> s orthogonal AND L16
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L9             4 S L5 AND (L6 OR L7 OR L8)
L10            4 DUP REM L9 (0 DUPLICATES REMOVED)
L11       151282 S NUCLEOPH? OR ELECTROPHI? AND L5
L12          208 S (NUCLEOPH? OR ELECTROPHI?) AND L5
L13          208 DUP REM L12 (0 DUPLICATES REMOVED)
L14            0 S IN(W)VIVO AND L13
L15            0 S IN(W)VITRO AND L13
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             503   FILE ADISINSIGHT
             347   FILE ADISNEWS
            6515   FILE AGRICOLA
            1065   FILE ANABSTR
              31   FILE ANTE
              36   FILE AQUALINE
            1750   FILE AQUASCI
            1205   FILE BIOBUSINESS
             741   FILE BIOCOMMERCE
            4072   FILE BIOENG
          103597   FILE BIOSIS
            5247   FILE BIOTECHABS
            5247   FILE BIOTECHDS
           44105   FILE BIOTECHNO
           15501   FILE CABA
           43195   FILE CANCERLIT
          139906   FILE CAPLUS
             869   FILE CEABA-VTB
             113   FILE CEN
             423   FILE CIN
            2793   FILE CONFSCI
              42   FILE CROPB
             124   FILE CROPU
            2636   FILE DDFB
           24838   FILE DDFU
           49187   FILE DGENE
            4844   FILE DISSABS
            2636   FILE DRUGB
              28   FILE DRUGMONOG2
           26704   FILE DRUGU
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              595   FILE EMBAL
            91395   FILE EMBASE
            40957   FILE ESBIOBASE
             1751   FILE FEDRIP
                2   FILE FOREGE
              620   FILE FROSTI
             1304   FILE FSTA
            95270   FILE GENBANK
               62   FILE HEALSAFE
             4485   FILE IFIPAT
              298   FILE IMSDRUGNEWS
               17   FILE IMSPRODUCT
              205   FILE IMSRESEARCH
            64732   FILE JICST-EPLUS
              117   FILE KOSMET
            35160   FILE LIFESCI
               28   FILE MEDICONF
           153452   FILE MEDLINE
              195   FILE NIOSHTIC
              794   FILE NTIS
                3   FILE NUTRACEUT
              381   FILE OCEAN
            69506   FILE PASCAL
              597   FILE PHAR
              179   FILE PHARMAML
                1   FILE PHIC
              559   FILE PHIN
             3078   FILE PROMT
              515   FILE PROUSDDR
                1   FILE PS
                9   FILE RDISCLOSURE
           101293   FILE SCISEARCH
               21   FILE SYNTHLINE
            45211   FILE TOXCENTER
            36164   FILE USPATFULL
             2164   FILE USPAT2
               61   FILE VETB
             1038   FILE VETU
               46   FILE WATER
             5117   FILE WPIDS
               38   FILE WPIFV
             5117   FILE WPINDEX
L1              QUE GLYCOPROTEIN
                ---------

     FILE 'MEDLINE, CAPLUS, BIOSIS, SCISEARCH, USPATFULL' ENTERED AT 18:16:38
     ON 16 FEB 2005
L2         61748 S GLYCOPROTEIN AND SYNTHESIS
L3          5428 S UNNATURAL(W)AMINO(W)ACID
L4           882 S L2 AND L3
L5           882 DUP REM L4 (0 DUPLICATES REMOVED)
L6            80 S SCHULTZ,PETER/AU
L7          1551 S WANG,LEI/AU
L8           144 S ZHANG,ZHIWEN/AU
L9             4 S L5 AND (L6 OR L7 OR L8)
L10            4 DUP REM L9 (0 DUPLICATES REMOVED)
L11       151282 S NUCLEOPH? OR ELECTROPHI? AND L5
L12          208 S (NUCLEOPH? OR ELECTROPHI?) AND L5
L13          208 DUP REM L12 (0 DUPLICATES REMOVED)
L14            0 S IN(W)VIVO AND L13
L15            0 S IN(W)VITRO AND L13
L16          151 S SOLID(W)PHASE AND L13
L17           43 S ORTHOGONAL AND L16
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L18          19 S TRNA AND L17

=> dup rem l18
PROCESSING COMPLETED FOR L18
L19          19 DUP REM L18 (0 DUPLICATES REMOVED)

=> d his

     (FILE 'HOME' ENTERED AT 18:14:54 ON 16 FEB 2005)

     INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE,
     AQUASCI, BIOBUSINESS, BIOCOMMERCE, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS,
     BIOTECHNO, CABA, CANCERLIT, CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB,
     CROPU, DDFB, DDFU, DGENE, DISSABS, ...' ENTERED AT 18:15:06 ON 16 FEB 2005
               SEA GLYCOPROTEIN
              ---------
           15324   FILE ADISCTI
             503   FILE ADISINSIGHT
             347   FILE ADISNEWS
            6515   FILE AGRICOLA
            1065   FILE ANABSTR
              31   FILE ANTE
              36   FILE AQUALINE
            1750   FILE AQUASCI
            1205   FILE BIOBUSINESS
             741   FILE BIOCOMMERCE
            4072   FILE BIOENG
          103597   FILE BIOSIS
            5247   FILE BIOTECHABS
            5247   FILE BIOTECHDS
           44105   FILE BIOTECHNO
           15501   FILE CABA
           43195   FILE CANCERLIT
          139906   FILE CAPLUS
             869   FILE CEABA-VTB
             113   FILE CEN
             423   FILE CIN
            2793   FILE CONFSCI
              42   FILE CROPB
             124   FILE CROPU
            2636   FILE DDFB
           24838   FILE DDFU
           49187   FILE DGENE
            4844   FILE DISSABS
            2636   FILE DRUGB
              28   FILE DRUGMONOG2
           26704   FILE DRUGU
             595   FILE EMBAL
           91395   FILE EMBASE
           40957   FILE ESBIOBASE
            1751   FILE FEDRIP
               2   FILE FOREGE
             620   FILE FROSTI
            1304   FILE FSTA
           95270   FILE GENBANK
              62   FILE HEALSAFE
            4485   FILE IFIPAT
             298   FILE IMSDRUGNEWS
              17   FILE IMSPRODUCT
             205   FILE IMSRESEARCH
           64732   FILE JICST-EPLUS
             117   FILE KOSMET
           35160   FILE LIFESCI
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            28   FILE MEDICONF
        153452   FILE MEDLINE
           195   FILE NIOSHTIC
           794   FILE NTIS
             3   FILE NUTRACEUT
           381   FILE OCEAN
         69506   FILE PASCAL
           597   FILE PHAR
           179   FILE PHARMAML
             1   FILE PHIC
           559   FILE PHIN
          3078   FILE PROMT
           515   FILE PROUSDDR
             1   FILE PS
             9   FILE RDISCLOSURE
        101293   FILE SCISEARCH
            21   FILE SYNTHLINE
         45211   FILE TOXCENTER
         36164   FILE USPATFULL
          2164   FILE USPAT2
            61   FILE VETB
          1038   FILE VETU
            46   FILE WATER
          5117   FILE WPIDS
            38   FILE WPIFV
          5117   FILE WPINDEX
L1             QUE GLYCOPROTEIN
               ---------

     FILE 'MEDLINE, CAPLUS, BIOSIS, SCISEARCH, USPATFULL' ENTERED AT 18:16:38
     ON 16 FEB 2005
L2         61748 S GLYCOPROTEIN AND SYNTHESIS
L3          5428 S UNNATURAL(W)AMINO(W)ACID
L4           882 S L2 AND L3
L5           882 DUP REM L4 (0 DUPLICATES REMOVED)
L6            80 S SCHULTZ,PETER/AU
L7          1551 S WANG,LEI/AU
L8           144 S ZHANG,ZHIWEN/AU
L9             4 S L5 AND (L6 OR L7 OR L8)
L10            4 DUP REM L9 (0 DUPLICATES REMOVED)
L11       151282 S NUCLEOPH? OR ELECTROPHI? AND L5
L12          208 S (NUCLEOPH? OR ELECTROPHI?) AND L5
L13          208 DUP REM L12 (0 DUPLICATES REMOVED)
L14            0 S IN(W)VIVO AND L13
L15            0 S IN(W)VITRO AND L13
L16          151 S SOLID(W)PHASE AND L13
L17           43 S ORTHOGONAL AND L16
L18           19 S TRNA AND L17
L19           19 DUP REM L18 (0 DUPLICATES REMOVED)

=> d l19 ibib ti abs 1-19

L19  ANSWER 1 OF 19  USPATFULL on STN
ACCESSION NUMBER:         2005:36910  USPATFULL
TITLE:                    Interleukin-2:remodeling and glycoconjugation of
                          interleukin-2
INVENTOR(S):              DeFrees, Shawn, North Wales, PA, UNITED STATES
                          Zopf, David, Wayne, PA, UNITED STATES
                          Bayer, Robert, San Diego, CA, UNITED STATES
                          Bowe, Caryn, Doylestown, PA, UNITED STATES
                          Hakes, David, Willow Grove, PA, UNITED STATES
                          Chen, Xi, Lansdale, PA, UNITED STATES
PATENT ASSIGNEE(S):       Neose Technologies, Inc. (U.S. corporation)
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	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005031584	A1	20050210
APPLICATION INFO.:	US 2003-410980	A1	20030409 (10)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2003-360779, filed on 19 Feb 2003, PENDING Continuation-in-part of Ser. No. US 2003-360770, filed on 6 Jan 2003, PENDING Continuation-in-part of Ser. No. US 2002-287994, filed on 5 Nov 2002, PENDING Continuation of Ser. No. WO 2002-US32263, filed on 9 Oct 2002, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-407527P	20020828 (60)
	US 2002-404249P	20020816 (60)
	US 2002-396594P	20020717 (60)
	US 2002-391777P	20020625 (60)
	US 2002-387292P	20020607 (60)
	US 2001-334301P	20011128 (60)
	US 2001-334233P	20011128 (60)
	US 2001-344692P	20011019 (60)
	US 2001-328523P	20011010 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: MORGAN, LEWIS & BOCKIUS LLP, 1701 MARKET STREET, PHILADELPHIA, PA, 19103-2921
NUMBER OF CLAIMS: 111
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 497 Drawing Page(s)
LINE COUNT: 19059
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
TI Interleukin-2:remodeling and glycoconjugation of interleukin-2
AB The invention includes methods and compositions for remodeling a peptide molecule, including the addition or deletion of one or more glycosyl groups to a peptide, and/or the addition of a modifying group to a peptide.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L19 ANSWER 2 OF 19 USPATFULL on STN
ACCESSION NUMBER: 2005:30336 USPATFULL
TITLE: Evolving new molecular function
INVENTOR(S): Liu, David R., Lexington, MA, UNITED STATES
Gartner, Zev, Somerville, MA, UNITED STATES
Kanan, Matthew W., Cambridge, MA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005025766	A1	20050203
APPLICATION INFO.:	US 2003-744605	A1	20031223 (10)

RELATED APPLN. INFO.: Continuation of Ser. No. US 2002-101030, filed on 19 Mar 2002, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-277081P	20010319 (60)
	US 2001-277094P	20010319 (60)
	US 2001-306691P	20010720 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: TESTA, HURWITZ & THIBEAULT, LLP, HIGH STREET TOWER, 125 HIGH STREET, BOSTON, MA, 02110

NUMBER OF CLAIMS: 14
EXEMPLARY CLAIM: CLM-01-11
NUMBER OF DRAWINGS: 68 Drawing Page(s)
LINE COUNT: 3865
TI Evolving new molecular function
AB Nature evolves biological molecules such as proteins through iterated rounds of diversification, selection, and amplification. The present invention provides methods, compositions, and systems for synthesizing, selecting, amplifying, and evolving non-natural molecules based on nucleic acid templates. The sequence of a nucleic acid template is used to direct the **synthesis** of non-natural molecules such as unnatural polymers and small molecules. Using this method combinatorial libraries of these molecules can be prepared and screened. Upon selection of a molecule, its encoding nucleic acid template may be amplified and/or evolved to yield the same molecule or related molecules for re-screening. The inventive methods and compositions of the present invention allow for the amplification and evolution of non-natural molecules in a manner analogous to the amplification of natural biopolymer such as polynucleotides and protein.

L19 ANSWER 3 OF 19 USPATFULL on STN
ACCESSION NUMBER: 2005:10915 USPATFULL
TITLE: Expanding the eukaryotic genetic code
INVENTOR(S): Chin, Jason W., Cambridge, UNITED KINGDOM
Cropp, T. Ashton, San Diego, CA, UNITED STATES
Anderson, J. Christopher, San Francisco, CA, UNITED STATES
Schultz, Peter G., La Jolla, CA, UNITED STATES
PATENT ASSIGNEE(S): The Scripps Research Institute, La Jolla, CA, UNITED STATES (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2005009049	A1	20050113	
APPLICATION INFO.:	US 2004-825867	A1	20040416	(10)

	NUMBER	DATE	
PRIORITY INFORMATION:	US 2003-463869P	20030417	(60)
	US 2003-479931P	20030618	(60)
	US 2003-493014P	20030805	(60)
	US 2003-496548P	20030819	(60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: QUINE INTELLECTUAL PROPERTY LAW GROUP, P.C., P O BOX 458, ALAMEDA, CA, 94501
NUMBER OF CLAIMS: 138
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 28 Drawing Page(s)
LINE COUNT: 9883
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
TI Expanding the eukaryotic genetic code
AB This invention provides compositions and methods for producing translational components that expand the number of genetically encoded amino acids in eukaryotic cells. The components include **orthogonal tRNAs, orthogonal** aminoacyl-**tRNA** synthetases, **orthogonal** pairs of **tRNAs** /synthetases and **unnatural amino acids.** Proteins and methods of producing proteins with **unnatural amino acids** in eukaryotic cells are also provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L19 ANSWER 4 OF 19 USPATFULL on STN
ACCESSION NUMBER: 2004:334870 USPATFULL
TITLE: Unnatural reactive amino acid genetic code additions
INVENTOR(S): Deiters, Alexander, La Jolla, CA, UNITED STATES
Cropp, T. Ashton, San Diego, CA, UNITED STATES
Chin, Jason W., Cambridge, UNITED KINGDOM
Anderson, J. Christopher, San Francisco, CA, UNITED STATES
Schultz, Peter G., La Jolla, CA, UNITED STATES
PATENT ASSIGNEE(S): The Scripps Research Institute, La Jolla, CA, UNITED STATES (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2004265952	A1	20041230	
APPLICATION INFO.:	US 2004-826919	A1	20040416	(10)

	NUMBER	DATE	
PRIORITY INFORMATION:	US 2003-479931P	20030618	(60)
	US 2003-493014P	20030805	(60)
	US 2003-496548P	20030819	(60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: QUINE INTELLECTUAL PROPERTY LAW GROUP, P.C., P O BOX 458, ALAMEDA, CA, 94501
NUMBER OF CLAIMS: 61
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 28 Drawing Page(s)
LINE COUNT: 9421
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
TI Unnatural reactive amino acid genetic code additions
AB This invention provides compositions and methods for producing translational components that expand the number of genetically encoded amino acids in eukaryotic cells. The components include **orthogonal tRNAs**, **orthogonal** aminoacyl-**tRNA** synthetases, **orthogonal** pairs of **tRNAs** /synthetases and **unnatural amino acids**. Proteins and methods of producing proteins with **unnatural amino acids** in eukaryotic cells are also provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L19 ANSWER 5 OF 19 USPATFULL on STN
ACCESSION NUMBER: 2004:255107 USPATFULL
TITLE: Protein arrays
INVENTOR(S): Schultz, Peter G., La Jolla, CA, UNITED STATES
Wang, Lei, San Diego, CA, UNITED STATES
PATENT ASSIGNEE(S): The Scripps Research Institute (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2004198637	A1	20041007	
APPLICATION INFO.:	US 2003-744899	A1	20031222	(10)

	NUMBER	DATE	
PRIORITY INFORMATION:	US 2002-435821P	20021222	(60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: QUINE INTELLECTUAL PROPERTY LAW GROUP, P.C., P O BOX 458, ALAMEDA, CA, 94501

NUMBER OF CLAIMS: 66
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 2 Drawing Page(s)
LINE COUNT: 3592
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
TI Protein arrays
AB The invention provides proteins attached to solid supports, and methods of preparing such solid support-bound proteins are provided. The proteins are attached to solid supports by means of an **unnatural amino acid** incorporated into the protein, which **unnatural amino acid** includes a reactive group that can react with a second reactive group that is attached to a solid support.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L19 ANSWER 6 OF 19 USPATFULL on STN
ACCESSION NUMBER: 2004:233341 USPATFULL
TITLE: Evolving new molecular function
INVENTOR(S): Liu, David R., Lexington, MA, UNITED STATES
Gartner, Zev J., Somerville, MA, UNITED STATES
Calderone, Christopher T., Cambridge, MA, UNITED STATES
PATENT ASSIGNEE(S): The President and Fellows of Harvard College, Cambridge, MA, UNITED STATES (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2004180412	A1	20040916	
APPLICATION INFO.:	US 2003-643752	A1	20030819	(10)

	NUMBER	DATE	
PRIORITY INFORMATION:	US 2002-404395P	20020819	(60)
	US 2002-419667P	20021018	(60)
	US 2002-432812P	20021211	(60)
	US 2003-444770P	20030204	(60)
	US 2003-457789P	20030326	(60)
	US 2003-469866P	20030512	(60)
	US 2003-479494P	20030618	(60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: TESTA, HURWITZ & THIBEAULT, LLP, HIGH STREET TOWER, 125 HIGH STREET, BOSTON, MA, 02110
NUMBER OF CLAIMS: 103
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 114 Drawing Page(s)
LINE COUNT: 8411
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
TI Evolving new molecular function
AB Nature evolves biological molecules such as proteins through iterated rounds of diversification, selection, and amplification. The power of Nature and the flexibility of organic **synthesis** are combined in nucleic acid-templated **synthesis**. The present invention provides a variety of template architectures for performing nucleic acid-templated **synthesis**, methods for increasing the selectivity of nucleic acid-templated reactions, methods for performing stereoselective nucleic acid-templated reactions, methods of selecting for reaction products resulting from nucleic acid-templated **synthesis**, and methods of identifying new chemical reactions based on nucleic acid-templated **synthesis**.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L19 ANSWER 7 OF 19 USPATFULL on STN
ACCESSION NUMBER: 2004:184970 USPATFULL
TITLE: Glycoconjugation methods and proteins/peptides produced by the methods
INVENTOR(S): DeFrees, Shawn, North Wales, PA, UNITED STATES
Zopf, David, Wayne, PA, UNITED STATES
Bayer, Robert, San Diego, CA, UNITED STATES
Bowe, Caryn, Doylestown, PA, UNITED STATES
Hakes, David, Willow Grove, PA, UNITED STATES
Chen, Xi, Lansdale, PA, UNITED STATES
PATENT ASSIGNEE(S): Neose Technologies, Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004142856	A1	20040722
APPLICATION INFO.:	US 2003-410913	A1	20030409 (10)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2003-360779, filed on 19 Feb 2003, PENDING Continuation-in-part of Ser. No. US 2003-360770, filed on 6 Jan 2003, PENDING Continuation-in-part of Ser. No. US 2002-287994, filed on 5 Nov 2002, PENDING Continuation of Ser. No. WO 2002-US32263, filed on 9 Oct 2002, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-407527P	20020828 (60)
	US 2002-407527P	20020828 (60)
	US 2002-404249P	20020816 (60)
	US 2002-396594P	20020717 (60)
	US 2002-391777P	20020625 (60)
	US 2002-387292P	20020607 (60)
	US 2001-334301P	20011128 (60)
	US 2001-334233P	20011128 (60)
	US 2001-334692P	20011121 (60)
	US 2001-328523P	20011010 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: MORGAN, LEWIS & BOCKIUS LLP, 1701 MARKET STREET, PHILADELPHIA, PA, 19103-2921
NUMBER OF CLAIMS: 88
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 497 Drawing Page(s)
LINE COUNT: 16544
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
TI Glycoconjugation methods and proteins/peptides produced by the methods
AB The invention includes methods and compositions for remodeling a peptide molecule, including the addition or deletion of one or more glycosyl groups to a peptide, and/or the addition of a modifying group to a peptide.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L19 ANSWER 8 OF 19 USPATFULL on STN
ACCESSION NUMBER: 2004:178936 USPATFULL
TITLE: **Glycoprotein synthesis**
INVENTOR(S): Schultz, Peter G., La Jolla, CA, UNITED STATES
Wang, Lei, San Diego, CA, UNITED STATES
Zhang, Zhiwen, San Diego, CA, UNITED STATES
PATENT ASSIGNEE(S): The Scripps Research Institute, La Jolla, CA, 92037 (U.S. corporation)

	NUMBER	KIND	DATE

PATENT INFORMATION: US 2004138106 A1 20040715
APPLICATION INFO.: US 2003-686944 A1 20031015 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-419265P	20021016 (60)
	US 2002-420990P	20021023 (60)
	US 2003-441450P	20030116 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: QUINE INTELLECTUAL PROPERTY LAW GROUP, P.C., P O BOX 458, ALAMEDA, CA, 94501
NUMBER OF CLAIMS: 57
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 5 Drawing Page(s)
LINE COUNT: 4389
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
TI **Glycoprotein synthesis**
AB Methods for making **glycoproteins**, both in vitro and in vivo, are provided. One method involves incorporating an **unnatural amino acid** into a protein and attaching one or more saccharide moieties to the **unnatural amino acid**. Another method involves incorporating an **unnatural amino acid** that includes a saccharide moiety into a protein. Proteins made by both methods can be further modified with additional sugars.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L19 ANSWER 9 OF 19 USPATFULL on STN
ACCESSION NUMBER: 2004:178391 USPATFULL
TITLE: Remodeling and glycoconjugation of peptides
INVENTOR(S): DeFrees, Shawn, North Wales, PA, UNITED STATES
Zopf, David, Wayne, PA, UNITED STATES
Bayer, Robert, San Diego, CA, UNITED STATES
Bowe, Caryn, Doylestown, PA, UNITED STATES
Hakes, David, Willow Grove, PA, UNITED STATES
Chen, Xi, Lansdale, PA, UNITED STATES
PATENT ASSIGNEE(S): Neose Technologies, Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004137557	A1	20040715
APPLICATION INFO.:	US 2002-287994	A1	20021105 (10)

RELATED APPLN. INFO.: Continuation of Ser. No. WO 2002-US32263, filed on 9 Oct 2002, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-407527P	20020828 (60)
	US 2002-404249P	20020816 (60)
	US 2002-396594P	20020717 (60)
	US 2002-391777P	20020625 (60)
	US 2002-387292P	20020607 (60)
	US 2001-334301P	20011128 (60)
	US 2001-334233P	20011128 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: MORGAN, LEWIS & BOCKIUS LLP, 1701 MARKET STREET, PHILADELPHIA, PA, 19103-2921
NUMBER OF CLAIMS: 447
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 345 Drawing Page(s)

LINE COUNT: 16205
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
TI Remodeling and glycoconjugation of peptides
AB The invention includes methods and compositions for remodeling a peptide molecule, including the addition or deletion of one or more glycosyl groups to a peptide, and/or the addition of a modifying group a peptide.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L19 ANSWER 10 OF 19 USPATFULL on STN

ACCESSION NUMBER:	2004:172476 USPATFULL
TITLE:	Glycopegylation methods and proteins/peptides produced by the methods
INVENTOR(S):	DeFrees, Shawn, North Wales, PA, UNITED STATES Zopf, David, Wayne, PA, UNITED STATES Bayer, Robert, San Diego, CA, UNITED STATES Bowe, Caryn, Doylestown, PA, UNITED STATES Hakes, David, Willow Grove, PA, UNITED STATES Chen, Xi, Lansdale, PA, UNITED STATES
PATENT ASSIGNEE(S):	Neose Technologies, Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004132640	A1	20040708
APPLICATION INFO.:	US 2003-411012	A1	20030409 (10)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. WO 2002-US32263, filed on 9 Oct 2002, PENDING		

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-407527P	20020828 (60)
	US 2002-404249P	20020816 (60)
	US 2002-396594P	20020717 (60)
	US 2002-391777P	20020625 (60)
	US 2002-387292P	20020607 (60)

DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
LEGAL REPRESENTATIVE:	MORGAN, LEWIS & BOCKIUS LLP, 1701 MARKET STREET, PHILADELPHIA, PA, 19103-2921
NUMBER OF CLAIMS:	77
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	497 Drawing Page(s)
LINE COUNT:	19255

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
TI Glycopegylation methods and proteins/peptides produced by the methods
AB The invention includes methods and compositions for remodeling a peptide molecule, including the addition or deletion of one or more glycosyl groups to a peptide, and/or the addition of a modifying group to a peptide.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L19 ANSWER 11 OF 19 USPATFULL on STN

ACCESSION NUMBER:	2004:165351 USPATFULL
TITLE:	Follicle stimulating hormone: remodeling and glycoconjugation of FSH
INVENTOR(S):	DeFrees, Shawn, North Wales, PA, UNITED STATES Zopf, David, Wayne, PA, UNITED STATES Bayer, Robert, San Diego, CA, UNITED STATES Bowe, Caryn, Doylestown, PA, UNITED STATES Hakes, David, Willow Grove, PA, UNITED STATES Chen, Xi, Lansdale, PA, UNITED STATES
PATENT ASSIGNEE(S):	Neose Technologies, Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004126838	A1	20040701
APPLICATION INFO.:	US 2003-410997	A1	20030409 (10)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2003-360779, filed on 19 Feb 2003, PENDING Continuation-in-part of Ser. No. US 2003-360770, filed on 6 Jan 2003, PENDING Continuation-in-part of Ser. No. US 2002-287994, filed on 5 Nov 2002, PENDING Continuation of Ser. No. WO 2002-US32263, filed on 9 Oct 2002, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-407527P	20020828 (60)
	US 2002-404249P	20020816 (60)
	US 2002-396594P	20020717 (60)
	US 2002-391777P	20020625 (60)
	US 2002-387292P	20020607 (60)
	US 2001-334301P	20011128 (60)
	US 2001-334233P	20011128 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: MORGAN, LEWIS & BOCKIUS LLP, 1701 MARKET STREET, PHILADELPHIA, PA, 19103-2921
NUMBER OF CLAIMS: 115
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 497 Drawing Page(s)
LINE COUNT: 19355
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
TI Follicle stimulating hormone: remodeling and glycoconjugation of FSH
AB The invention includes methods and compositions for remodeling a peptide molecule, including the addition or deletion of one or more glycosyl groups to a peptide, and/or the addition of a modifying group to a peptide.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L19 ANSWER 12 OF 19 USPATFULL on STN
ACCESSION NUMBER: 2004:150947 USPATFULL
TITLE: Interferon beta: remodeling and glycoconjugation of interferon beta
INVENTOR(S): DeFrees, Shawn, North Wales, PA, UNITED STATES
Zopf, David, Wayne, PA, UNITED STATES
Bayer, Robert, San Diego, CA, UNITED STATES
Bowe, Caryn, Doylestown, PA, UNITED STATES
Hakes, David, Willow Grove, PA, UNITED STATES
Chen, Xi, Lansdale, PA, UNITED STATES
PATENT ASSIGNEE(S): Neose Technologies, Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004115168	A1	20040617
APPLICATION INFO.:	US 2003-410930	A1	20030409 (10)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2003-360779, filed on 19 Feb 2003, PENDING Continuation-in-part of Ser. No. US 2003-360770, filed on 6 Jan 2003, PENDING Continuation-in-part of Ser. No. US 2002-287994, filed on 5 Nov 2002, PENDING Continuation of Ser. No. WO 2002-US32263, filed on 9 Oct 2002, PENDING

	NUMBER	DATE

PRIORITY INFORMATION:	US 2002-407527P	20020828 (60)
	US 2002-404249P	20020816 (60)
	US 2002-396594P	20020717 (60)
	US 2002-391777P	20020625 (60)
	US 2002-387292P	20020607 (60)
	US 2001-334301P	20011128 (60)
	US 2001-334233P	20011128 (60)
	US 2001-344692P	20011019 (60)
	US 2001-328523P	20011010 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	MORGAN, LEWIS & BOCKIUS LLP, 1701 MARKET STREET, PHILADELPHIA, PA, 19103-2921	
NUMBER OF CLAIMS:	119	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	497 Drawing Page(s)	
LINE COUNT:	19412	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

TI Interferon beta: remodeling and glycoconjugation of interferon beta

AB The invention includes methods and compositions for remodeling a peptide molecule, including the addition or deletion of one or more glycosyl groups to a peptide, and/or the addition of a modifying group to a peptide.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L19 ANSWER 13 OF 19 USPATFULL on STN

ACCESSION NUMBER:	2004:107626 USPATFULL		
TITLE:	Interferon alpha: remodeling and glycoconjugation of interferon alpha		
INVENTOR(S):	DeFrees, Shawn, North Wales, PA, UNITED STATES Zopf, David, Wayne, PA, UNITED STATES Bayer, Robert, San Diego, CA, UNITED STATES Bowe, Caryn, Doylestown, PA, UNITED STATES Hakes, David, Willow Grove, PA, UNITED STATES Chen, Xi, Lansdale, PA, UNITED STATES		
PATENT ASSIGNEE(S):	Neose Technologies, Inc. (U.S. corporation)		
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004082026	A1	20040429
APPLICATION INFO.:	US 2003-411049	A1	20030409 (10)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2003-360779, filed on 19 Feb 2003, PENDING Continuation-in-part of Ser. No. US 2003-360770, filed on 6 Jan 2003, PENDING Continuation-in-part of Ser. No. US 2002-287994, filed on 5 Nov 2002, PENDING Continuation of Ser. No. WO 2002-US32263, filed on 9 Oct 2002, PENDING		

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-407527P	20020828 (60)
	US 2002-404249P	20020816 (60)
	US 2002-396594P	20020717 (60)
	US 2002-391777P	20020625 (60)
	US 2002-387292P	20020607 (60)
	US 2001-334301P	20011128 (60)
	US 2001-334233P	20011128 (60)
	US 2001-344692P	20011019 (60)
	US 2001-328523P	20011010 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	MORGAN, LEWIS & BOCKIUS LLP, 1701 MARKET STREET,	

PHILADELPHIA, PA, 19103-2921
NUMBER OF CLAIMS: 126
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 497 Drawing Page(s)
LINE COUNT: 19445
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
TI Interferon alpha: remodeling and glycoconjugation of interferon alpha
AB The invention includes a multitude of methods and compositions for remodeling a peptide molecule, including the addition or deletion of one or more glycosyl groups to a peptide, and/or the addition of a modifying group to a peptide.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L19 ANSWER 14 OF 19 USPATFULL on STN
ACCESSION NUMBER: 2004:101966 USPATFULL
TITLE: Granulocyte colony stimulating factor: remodeling and glycoconjugation of G-CSF
INVENTOR(S): DeFrees, Shawn, North Wales, PA, UNITED STATES
Zopf, David, Wayne, PA, UNITED STATES
Bayer, Robert, San Diego, CA, UNITED STATES
Bowe, Caryn, Doylestown, PA, UNITED STATES
Hakes, David, Willow Grove, PA, UNITED STATES
Chen, Xi, Lansdale, PA, UNITED STATES
PATENT ASSIGNEE(S): Neose Technologies, Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004077836	A1	20040422
APPLICATION INFO.:	US 2003-410962	A1	20030409 (10)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2003-360779, filed on 19 Feb 2003, PENDING Continuation-in-part of Ser. No. US 2003-360770, filed on 6 Jan 2003, PENDING Continuation-in-part of Ser. No. US 2002-287994, filed on 5 Nov 2002, PENDING Continuation of Ser. No. WO 2002-US32263, filed on 9 Oct 2002, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-407527P	20020828 (60)
	US 2002-404249P	20020816 (60)
	US 2002-396594P	20020717 (60)
	US 2002-391777P	20020625 (60)
	US 2002-387292P	20020607 (60)
	US 2001-334301P	20011128 (60)
	US 2001-334233P	20011128 (60)
	US 2001-344692P	20011019 (60)
	US 2001-328523P	20011010 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: MORGAN, LEWIS & BOCKIUS LLP, 1701 MARKET STREET, PHILADELPHIA, PA, 19103-2921
NUMBER OF CLAIMS: 111
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 497 Drawing Page(s)
LINE COUNT: 19316
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
TI Granulocyte colony stimulating factor: remodeling and glycoconjugation of G-CSF
AB The invention includes methods and compositions for remodeling a peptide molecule, including the addition or deletion of one or more glycosyl groups to a peptide, and/or the addition of a modifying group to a peptide.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L19 ANSWER 15 OF 19 USPATFULL on STN
ACCESSION NUMBER: 2004:101228 USPATFULL
TITLE: Whole cell engineering by mutagenizing a substantial portion of a starting genome, combining mutations, and optionally repeating
INVENTOR(S): Short, Jay M., Rancho Santa Fe, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004077090	A1	20040422
APPLICATION INFO.:	US 2003-383798	A1	20030306 (10)

RELATED APPLN. INFO.: Continuation of Ser. No. US 2000-677584, filed on 30 Sep 2000, ABANDONED Continuation-in-part of Ser. No. US 2000-594459, filed on 14 Jun 2000, GRANTED, Pat. No. US 6605449 Continuation-in-part of Ser. No. US 2000-522289, filed on 9 Mar 2000, GRANTED, Pat. No. US 6358709 Continuation-in-part of Ser. No. US 2000-498557, filed on 4 Feb 2000, PENDING Continuation-in-part of Ser. No. US 2000-495052, filed on 31 Jan 2000, GRANTED, Pat. No. US 6479258

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-156815P	19990929 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: HALE AND DORR LLP, 300 PARK AVENUE, NEW YORK, NY, 10022
NUMBER OF CLAIMS: 22
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 28 Drawing Page(s)
LINE COUNT: 37121
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
TI Whole cell engineering by mutagenizing a substantial portion of a starting genome, combining mutations, and optionally repeating
AB An invention comprising cellular transformation, directed evolution, and screening methods for creating novel transgenic organisms having desirable properties. Thus in one aspect, this invention relates to a method of generating a transgenic organism, such as a microbe or a plant, having a plurality of traits that are differentially activatable. Also, a method of retooling genes and gene pathways by the introduction of regulatory sequences, such as promoters, that are operable in an intended host, thus conferring operability to a novel gene pathway when it is introduced into an intended host. For example a novel man-made gene pathway, generated based on microbially-derived progenitor templates, that is operable in a plant cell. Furthermore, a method of generating novel host organisms having increased expression of desirable traits, recombinant genes, and gene products.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L19 ANSWER 16 OF 19 USPATFULL on STN
ACCESSION NUMBER: 2004:83455 USPATFULL
TITLE: Protein remodeling methods and proteins/peptides produced by the methods
INVENTOR(S): DeFrees, Shawn, North Wales, PA, UNITED STATES
Zopf, David, Wayne, PA, UNITED STATES
Bayer, Robert, San Diego, CA, UNITED STATES
Hakes, David, Willow Grove, PA, UNITED STATES
Chen, Xi, Lansdale, PA, UNITED STATES
PATENT ASSIGNEE(S): Neose Technologies, Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004063911	A1	20040401
APPLICATION INFO.:	US 2003-411026	A1	20030409 (10)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2003-360779, filed on 19 Feb 2003, PENDING Continuation-in-part of Ser. No. US 2003-360770, filed on 6 Jan 2003, PENDING Continuation-in-part of Ser. No. US 2002-287994, filed on 5 Nov 2002, PENDING Continuation of Ser. No. WO 2002-US32263, filed on 9 Oct 2002, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-407527P	20020828 (60)
	US 2002-404249P	20020816 (60)
	US 2002-396594P	20020717 (60)
	US 2002-391777P	20020625 (60)
	US 2002-387292P	20020607 (60)
	US 2001-334301P	20011128 (60)
	US 2001-334233P	20011128 (60)
	US 2001-344692P	20011019 (60)
	US 2001-328523P	20011010 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: MORGAN, LEWIS & BOCKIUS LLP, 1701 MARKET STREET, PHILADELPHIA, PA, 19103-2921
NUMBER OF CLAIMS: 39
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 497 Drawing Page(s)
LINE COUNT: 18872
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
TI Protein remodeling methods and proteins/peptides produced by the methods
AB The invention includes methods and compositions for remodeling a peptide molecule, including the addition or deletion of one or more glycosyl groups to a peptide, and/or the addition of a modifying group to a peptide.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L19 ANSWER 17 OF 19 USPATFULL on STN
ACCESSION NUMBER: 2004:57444 USPATFULL
TITLE: Alpha galalctosidase a: remodeling and glycoconjugation of alpha galactosidase A
INVENTOR(S): DeFrees, Shawn, North Wales, PA, UNITED STATES
Zopf, David, Wayne, PA, UNITED STATES
Bayer, Robert, San Diego, CA, UNITED STATES
Bowe, Caryn, Doylestown, PA, UNITED STATES
Hakes, David, Willow Grove, PA, UNITED STATES
Chen, Xi, Lansdale, PA, UNITED STATES
PATENT ASSIGNEE(S): Neose Technologies, Inc. (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004043446	A1	20040304
APPLICATION INFO.:	US 2003-411037	A1	20030409 (10)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. WO 2002-US32263, filed on 9 Oct 2002, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-407527P	20020828 (60)
	US 2002-404249P	20020816 (60)

	US 2002-396594P	20020717 (60)
	US 2002-391777P	20020625 (60)
	US 2002-387292P	20020607 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: MORGAN, LEWIS & BOCKIUS LLP, 1701 MARKET STREET, PHILADELPHIA, PA, 19103-2921
NUMBER OF CLAIMS: 122
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 497 Drawing Page(s)
LINE COUNT: 19395
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
TI Alpha galalctosidase a: remodeling and glycoconjugation of alpha galactosidase A
AB The invention includes methods and compositions for remodeling a peptide molecule, including the addition or deletion of one or more glycosyl groups to a peptide, and/or the addition of a modifying group to a peptide.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L19 ANSWER 18 OF 19 USPATFULL on STN
ACCESSION NUMBER: 2003:213657 USPATFULL
TITLE: Expression profiles and methods of use
INVENTOR(S): Wan, Jackson Shek-Lam, San Diego, CA, UNITED STATES
Wang, Yixin, San Diego, CA, UNITED STATES

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2003148295	A1	20030807	
APPLICATION INFO.:	US 2002-101510	A1	20020320	(10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-276947P	20010320 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: PRESTON GATES ELLIS & ROUVELAS MEEDS LLP, 1735 NEW YORK AVENUE, NW, SUITE 500, WASHINGTON, DC, 20006
NUMBER OF CLAIMS: 90
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 47 Drawing Page(s)
LINE COUNT: 7505
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
TI Expression profiles and methods of use
AB The present invention relates to gene expression profiles, algorithms to generate gene expression profiles, microarrays comprising nucleic acid sequences representing gene expression profiles, methods of using gene expression profiles and microarrays, and business methods directed to the use of gene expression profiles, microarrays, and algorithms. The present invention further relates to protein expression profiles, algorithms to generate protein expression profiles, microarrays comprising protein-capture agents that bind proteins comprising protein expression profiles, methods of using protein expression profiles and microarrays, and business methods directed to the use of protein expression profiles, microarrays, and algorithms.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L19 ANSWER 19 OF 19 USPATFULL on STN
ACCESSION NUMBER: 2003:165883 USPATFULL
TITLE: Evolving new molecular function
INVENTOR(S): Liu, David R., Lexington, MA, UNITED STATES

Gartner, Zev, Somerville, MA, UNITED STATES
Kanan, Matthew W., Cambridge, MA, UNITED STATES

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 2003113738	A1	20030619	
APPLICATION INFO.:	US 2002-101030	A1	20020319	(10)

	NUMBER	DATE	
PRIORITY INFORMATION:	US 2001-277081P	20010319	(60)
	US 2001-277094P	20010319	(60)
	US 2001-306691P	20010720	(60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Choate, Hall & Stewart, Exchange Place, 53 State Street, Boston, MA, 02109
NUMBER OF CLAIMS: 46
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 68 Drawing Page(s)
LINE COUNT: 3548
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
TI Evolving new molecular function
AB Nature evolves biological molecules such as proteins through iterated rounds of diversification, selection, and amplification. The present invention provides methods, compositions, and systems for synthesizing, selecting, amplifying, and evolving non-natural molecules based on nucleic acid templates. The sequence of a nucleic acid template is used to direct the **synthesis** of non-natural molecules such as unnatural polymers and small molecules. Using this method combinatorial libraries of these molecules can be prepared and screened. Upon selection of a molecule, its encoding nucleic acid template may be amplified and/or evolved to yield the same molecule or related molecules for re-screening. The inventive methods and compositions of the present invention allow for the amplification and evolution of non-natural molecules in a manner analogous to the amplification of natural biopolymer such as polynucleotides and protein.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE, AQUASCI, BIOBUSINESS, BIOCOMMERCE, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CANCERLIT, CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DISSABS, ...' ENTERED AT 18:15:06 ON 16 FEB 2005

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347	FILE ADISNEWS
6515	FILE AGRICOLA
1065	FILE ANABSTR
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741	FILE BIOCOMMERCE
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  5247   FILE BIOTECHDS
 44105   FILE BIOTECHNO
 15501   FILE CABA
 43195   FILE CANCERLIT
139906   FILE CAPLUS
   869   FILE CEABA-VTB
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  2793   FILE CONFSCI
    42   FILE CROPB
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  2636   FILE DDFB
 24838   FILE DDFU
 49187   FILE DGENE
  4844   FILE DISSABS
  2636   FILE DRUGB
    28   FILE DRUGMONOG2
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 95270   FILE GENBANK
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    17   FILE IMSPRODUCT
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   381   FILE OCEAN
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   179   FILE PHARMAML
     1   FILE PHIC
   559   FILE PHIN
  3078   FILE PROMT
   515   FILE PROUSDDR
     1   FILE PS
     9   FILE RDISCLOSURE
101293   FILE SCISEARCH
    21   FILE SYNTHLINE
 45211   FILE TOXCENTER
 36164   FILE USPATFULL
  2164   FILE USPAT2
    61   FILE VETB
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    46   FILE WATER
  5117   FILE WPIDS
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  5117   FILE WPINDEX
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     FILE 'MEDLINE, CAPLUS, BIOSIS, SCISEARCH, USPATFULL' ENTERED AT 18:16:38
     ON 16 FEB 2005
L2          61748 S GLYCOPROTEIN AND SYNTHESIS
L3           5428 S UNNATURAL(W)AMINO(W)ACID
L4            882 S L2 AND L3
L5            882 DUP REM L4 (0 DUPLICATES REMOVED)
L6             80 S SCHULTZ,PETER/AU
L7           1551 S WANG,LEI/AU
L8            144 S ZHANG,ZHIWEN/AU
L9              4 S L5 AND (L6 OR L7 OR L8)
L10             4 DUP REM L9 (0 DUPLICATES REMOVED)
L11        151282 S NUCLEOPH? OR ELECTROPHI? AND L5
L12           208 S (NUCLEOPH? OR ELECTROPHI?) AND L5
L13           208 DUP REM L12 (0 DUPLICATES REMOVED)
L14             0 S IN(W)VIVO AND L13
L15             0 S IN(W)VITRO AND L13
L16           151 S SOLID(W)PHASE AND L13
L17            43 S ORTHOGONAL AND L16
L18            19 S TRNA AND L17
L19            19 DUP REM L18 (0 DUPLICATES REMOVED)

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